MULTIMEDIA UNIVERSITY ®

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2022/2023 (TERM ID 2210)

PIM0245 – INTRODUCTION TO MULTIMEDIA TECHNOLOGY

(Foundation in Information Technology)

7 FEBRUARY 2023
2.30 p.m. – 4.30 p. m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of **THREE** pages (excluding the cover page).
2. Answer **ALL** questions.
3. Write your answers in the Answer Booklet provided.

Instructions: Answer all questions. Write your answers in the Answer Booklet.

QUESTION 1 [10 Marks]

a. Automated Teller Machine (ATM) is the most common multimedia product used by our community. Identify **THREE (3)** characteristics of this product.

(3 marks)

b. As a developer of a multimedia product, list and explain **TWO (2)** perspectives that are measured in evaluating a multimedia product.

(3 marks)

c. Why it is important to identify the target audience of a multimedia product? State **TWO (2)** examples of features that can be included in determining the suitable target audience.

(2 marks)

d. Describe briefly **TWO (2)** advantages of delivering a multimedia system via World Wide Web.

(2 marks)

QUESTION 2 [10 Marks]

a. Identify the navigation structure shown in *Diagram 1*. Support your answer with a reason.

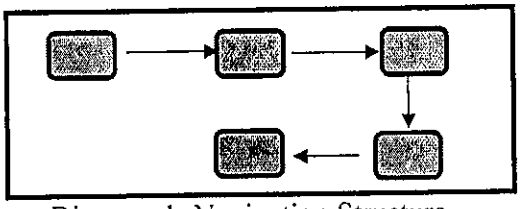

Diagram 1: Navigation Structure

(1.5 marks)

b. Explain briefly the components of multimedia interface below:
   i. Icon
   ii. Hotspots
   iii. Feedback

(3 marks)

c. What is the difference between the typefaces below? Identify and explain briefly **ONE (1)** characteristic that is used to describe text physically.

Georgia Calibri

(2.5 marks)

d. List and explain **TWO (2)** techniques used in computer animation.

(3 marks)

Continued...

QUESTION 3 [10 Marks]

a. Calculate the estimated file size for the cartoon shown in **Image 1** below. Show the calculation steps in detail and write your answer in MB.

(3 marks)

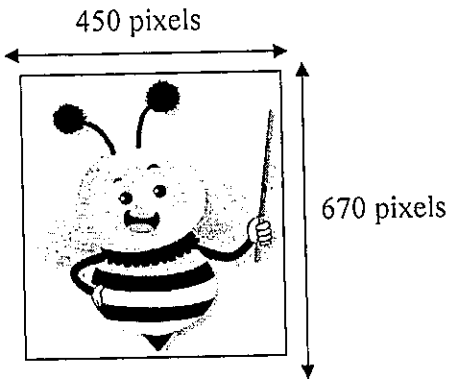

Image 1: cartoon.jpg

b. Based on the file format stated in Question 3(a), list **THREE (3)** of its characteristics.

(3 marks)

c. What is font mapping? Suggest **ONE (1)** technique that can be used to resolve this process.

(2 marks)

d. Write the **CORRECT** type or category of authoring tools based on the explanation given below.

(2 marks)

Example:

Explanation	Type / Category
Elements are organized as a stack of card	**Card- based Authoring Tools**

Explanation	Type / Category
i. Users are allowed to jump to any page in the structured navigation pattern.	i. _____
ii. Elements and events are organized along a timeline	ii. _____
iii. Elements are triggered at a given time or location in the sequence of events.	iii. _____
iv. Sequence events and activities can be built by placing icons on a flow line without any scripting.	iv. _____

Continued...

QUESTION 4 [10 Marks]

Luna owns a website to share her knowledge and expertise in architecture and interior design. She organized the content of the website into four menus namely Interior Themes, Space Planning, Lighting and Elements of Design. Three submenus will be included in Elements of Design menu which are space, colour and pattern. Each of these submenus will have examples and guidelines with added media such as audio, animation, and video for better understanding in the concept of architecture and interior design.

a. Identify the category for the above multimedia product and give a reason to support your answer.

(1 mark)

b. State **TWO (2)** considerations that Luna must consider in developing the content of her website.

(2 marks)

c. Illustrate the navigation structure for the above product.

(7 marks)

QUESTION 5 [10 marks]

Michael will develop a montage for an opening ceremony in Kuala Lumpur. This montage will include several images and a 45-second video clip using multimedia authoring software. This is a high-quality video as it uses 24-bit of colour resolution, and the frame size is 320 by 240. An audio file will be included into the video clip to make it more interesting.

a. Assist Michael to calculate the file size of the audio that he wants to include in his video clip. Show the calculation steps in detail and write the answer in MB.

No. of channels	Sampling Rate	Sound resolution
Stereo	44.1KHz	16-bit

(3.5 marks)

b. Based on your answer in Question 5(a), calculate the estimated file size for this digital video and write the answer in MB. Show the calculation steps in detail.

(3.5 marks)

c. Editing, cross-platform, and interactivity are the most common features included in an authoring tool. Describe briefly each of these features.

(3 marks)

End of Paper